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ABSTRACT

Employers in High Wycombe, Buckinghamshire, England, were sent a questionnaire to determine what economics knowledge and skills are desired by industry in the business education of its 16-19 year old employees and what type of economics is used in, or is otherwise especially relevant to, industry. Industry is defined to include a wide range of private and public organizations, including finance, distribution, manufacturing, and the public sector. The sample of 50 employers comprised all those whose students were attending Buckinghamshire College of Higher Education for the first or second year of the Business Education Council's (BEC) national certificate course. The return rate was 72%. The survey disclosed a major distinction between the banking sector's responses and those of other types of employers in the identification and specification of broad business education and economic needs. It also revealed that many of the firms sampled appeared not to know of the structural or material changes wrought by the BEC and cast doubt on some employers' understanding of economics terminology. (Author/RM)

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RESEARCH PAPERS
in
ECONOMICS EDUCATION

THE PROVISION OF ECONOMICS IN THE BUSINESS EDUCATION COUNCIL NATIONAL AWARDS CURRICULUM, AND THE DEMAND FOR ECONOMICS UNDERSTANDING BY INDUSTRY

By
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The Provision of Economics in the Business Education Council National Awards Curriculum, and the Demand for Economics Understanding by Industry

by

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Summary

This paper reports an empirical study which investigated the perceived need by a sample of employers of a range of economics topics and concepts. It sought to answer the questions: What economics does industry indicate it wants included in the business education of its 16/19 year old employees? and What economics is used in, or otherwise especially relevant to, industry? The survey disclosed a major distinction between the banking sector's responses and those of other types of employer in the identification and specification of broad business education needs and the need of economics. It also revealed that many of the firms sampled appeared not to know of the structural or material changes wrought by BEC, and it cast doubt on some employers' understanding of economics terminology.

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Research Papers in Economics Education, University of London Institute of Education. Economics, Geography and Business Education Department.

Author and Title

1.	B. D. Cressey.	"The Provision of Economics Education in One London Borough" November 1982
2.	N. J. Carr.	"An Evaluation of the Use of Case Studies in Economics at Advanced Level in Schools" November 1982
3.	K. R. J. Wood.	"Computer Assisted Learning in a Sixth Form Economics Course" February 1983
4.	B. King.	"Economic Understanding and BEC National Level Students" September 1983
5.	A. Pittwood.	"The Provision of Economics in the Business Education Council National Awards Curriculum, and the Demand for Economics Understanding by Industry" January 1984

Introduction

> ...BEC does its very best to ensure that our whole endeavour is related to what employers tell us is required in the education of BEC students. (1)

This study was prompted by the above statement. It is concerned with the effect on the teaching and learning of economics of the curriculum development undertaken by the Business Education Council (BEC) since 1974. From its inception, BEC has been, and indeed continues to be, subject to the criticisms of individuals and organisations over the changes it has instituted in curriculum, pedagogy, and administrative practices. As recorded below, individual economics teachers, economics teacher trainers, and the Economics Association have expressed concern over the nature and role of economics in the BEC National Awards curriculum. (2) However, they, and any others seeking to question any aspect of the content of BEC business education seem to face the powerful finality of the statement above, which was made by John Sheffield (Chairman, BEC) in a paper to a joint CBI/Colleges Panel conference.

The empirical study reported below represents an attempt to test matters arisng from Sheffield's assertion, with respect to the economics curriculum in the BEC National Awards. It sought answers to the following questions:

1. What economics does industry indicate it wants included in the business education of its 16/19 year old employees?

2. What economics is used in, or otherwise especially relevant to, industry?

- using 'industry' as a collective term for employers in the five broad classifications: financial, distribution, public sector, manufacturing and other. The perceived need for the concepts and topics of economics of a sample of fifty employers in the area of High Wycombe, Buckinghamshire were sought by questionnaire. In addition to rating the usefulness of ninety five concepts/topics in their students' business education, respondents also indicated whether particular items were used in, or otherwise especially relevant to, the organisation, and whether the organisation had identified the knowledge, understanding and skills required in a business education course. Further data were collected orally through the Consultative Committee of the School of Business Studies, Buckinghamshire College of Higher Education, and from the representatives of local employers. Finally, BEC documents and procedures were examined, as were other papers to the joint CBI/Colleges Panel conference; recording not only what BEC has been told, but also the source.

Context

> . . . take note of recent changes in the market. There are, I believe, signs that the status of economics has declined and that this decline is partly due to its content as traditionally taught [and to] unfavourable reactions of the business community to traditional economics. (4)

Professor Frank Livesey's warning sets the context of this study, which is examining that curriculum development which Livesey has cited as 'probably the clearest evidence' for his assertion. (5) The reference to 'the market' is

apposite: as Ronald King (6) and Beryl Tipton (7) have pointed out, the further education tradition is based on the two principles of 'voluntarism' and 'consumerism' which are expressed in the entrepreneurial activities of staff and in the relationship of college staff and local employers. (8) Some explanation of BEC's views and activities more readily emerges once it is appreciated that BEC is firmly within that 'consumerist' tradition. The reference to the 'content as traditionally taught' raises several areas of debate: the nature of economics, the divorce of theory from reality in maintaining the supremacy of the 'sharp analytical edge', the movement from discipline-based courses toward the thematic and interdisciplinary approach. (9) And it is the content as traditionally taught which is held to have contributed to the development of the Cambridge Business Studies Project and the GCE A level course. (10) Finally, the reference to 'unfavourable reactions of the business community to traditional economics' is taken up by the empirical study described below.

Business Studies

The term 'business studies' is not easy to define for it is used in connexion with a vast range of pre and post entry education and training for careers in the private and public sectors: from BEC General Certificate up to degree level. This study is concerned with the two-year courses for national awards in business studies available to the school leaver at 16, essentially provided for the 16/19 age group but, in fact, with no upper age limit. Such courses may be described as 'general' for not providng a complete training for any specific businss career but including the disciplines fundamental to business education. (11) For many students, a national award represents a terminal qualification, perhaps supplemented by experience and training at work; for others, it will become part of the progress to professional qualification or the entry to higher education courses.

Needs, Relevance and Evaluation

Derek Miller is, guardedly, sure that:

> 'Relevance' is possibly the best word to describe the basis on which many education syllabuses have changed over the past decade. Educationalists have concentrated their efforts on attempts to make courses and syllabuses more relevant to the needs of students, employers and society in general (12)

A concomitant is some means of evaluating courses, syllabuses and programmes.

From the outset BEC identified a dual purpose for its awards:

> to provide awards recognised and respected in their own right by students and employers as appropriate qualifications for those employed in any part of industry, commerce, central and local government
>
> to provide for the student a progressive route to appropriate professional and other higher qualifications (13)

and recognised the needs of students, employers and professional bodies. BEC proceeded on the premise that employers' needs were not being satisfied, yet offered no research into those needs nor any evidence of the dissatisfaction with the then current provisions, admitting that:

Since its formation, Council has been concerned at the inadequacy of the available data about the effectiveness of the existing provisions for business education. Very little is presently known about the size of the potential market for such courses or the costs and benefits to individuals and to society of this important part of the country's total educational provision. The lack of such data adds to the already difficult task which BEC has of planning rational and effective courses for the future. (14)

Continuing:

> Council therefore considers that an essential feature of its work programme is to find out the requirements for business education and the cost of meeting these requirements using a range of alternative methods and routes of study. (15)

These statements were made in the First Policy Statement in which document BEC set out its philosophy for business education, which represented substantial curricular and organisational changes. Paul Morris has called this an 'interesting principle', (16) in pointing out that the proposals preceeded research to determine their necessity, direction and costs: Cantor and Roberts remark, understating, that the order of activities did 'not seem entirely logical'. (17)

However, Morris did find one reference to some prior research, for John M Bruce Lockhart (Chairman, BEC 1974-1980) interviewed for the journal Trade and Industry stated:

> On the research side we set up a small working party to look into research into Business Education which has been done in the past. We then initiated, through a private research group, some research into what both students and employers think of the present system of Business Education. We split the employers into two groups, those who had had experience of Business Education - whom we asked how relevant it had been to their company activities; and the other group of employers who had not had experience of Business Education - we asked them 'Why not?' ... As a result of all this work, we hope that the policy statement, which has now been issued, is both respectable in terms of the quality of the research and intellectual in terms of the ideas put forward. (18)

No details of the 'small working party', the research tools, nor the results were given, and Morris concluded that it was an 'extremely inadequate starting point for the curriculum development'. (19) That First Policy Statement published in March 1976 noted the establishment of a Research Committee, and identified three topics requiring research: the nature and potential of the market for BEC courses; what does a business education cost?; methods of monitoring standards. No costing exercise was mounted, as Council decided in 1978 that it would be 'inappropriate' for BEC to attempt it, and Council had developed considerable doubts about the ultimate usefulness. (20)

This small scale study has been influenced by four evaluation exercises: Professor Livesey's on the relevance of GCE A level Economics to industry and the professions; (21) the National Foundation for Educational Research's evaluation of TEC programmes by Christine Moor, Sherrall Andrews and Alan Dean (22) and the BEC Research Studies of the General Awards and of the education needs of the Distributive Industry. (23)

Notes and References

1 Sheffield, J (1981) 'Identifying employer and employees needs.' BEC & CBI: the way ahead (Coombe Lodge Report vol.14 no.10 p. 512)

2 The BEC National Awards, in full the BEC National Certificate and the BEC National Dipoloma, were, from 1978 to 1983, an assessed level of attainment in courses for careers in business, finance, distribution, and public administration. Following the merger of BEC and the Technician Education Council (TEC) in 1983 the qualification will be titled BTEC National Certificate/Diploma in Business Studies.
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BTEC(1983) Getting under way (London:BTEC [p.1])

3 The ONC and OND schemes established in 1960 and 1961 were governed by Rules laid down by the Secretary of State.

4 Livesey,F (1982) 'The teaching of the theory of the firm: a response.' Economics Vol.xviii part 3 no.79 (Autumn p.88)

5 Livesey (1982) p.88

6 King, R (1976) School and college: studies of post sixteen education (London: Routledge & Kegan Paul Chs. 7, 10, 11 passim)

7 Tipton, B F A (1973) Conflict and change in a technical college (London: Hutchinson).

8 The voluntaristic and individualistic development of FE is considered by Peters (1967), and the need of colleges to attract students by Bratchell (1968). For the statutory provision of FE see, Education Act, 1944. For broad surveys of FE see, Cantor & Roberts (1969), Cantor & Roberts (1979), Locke & Pratt (1979). For critical views of the relationship between FE and industry see, Brook (1972), Gleeson & Mardle (1980).
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9 Livesey (1982) p.88

10 Oral communication. (16 March 1983) David H Dyer, Director, Cambridge Business Studies Project Trust. Thames Valley branch meeting Economics Association, High Wycombe, Buckinghamshire.
Oral communication. (24 March 1983) David H Dyer, Director, Cambridge Business Studies Project Trust. MA(Economics Education) course seminar, University of London Institute of Education.

11 Hope & Dowling hold economics, accounts and law to be the traditional core subjects of business studies.
Hope, S & Dowling, T (1975) 'Business studies and business ethics'. The Vocational Aspect of Education vol.xxviii no. 67 (Summer p. 41)
For a view of the use of conditionals and write-so-as-to-appear-cautious see, Anderson (1981) pp. 50-51
Anderson, D C (1981) Evaluating curriculum proposals. (London: Croom Helm)

12 Miller, D (1981) 'Practical business education at the non-advanced levels'. Journal of Further and Higher Education 5(1) (Spring p. 51)

13 BEC(1975) Consultative document. (London: BEC p.3)

14 BEC(1975) First policy statement. (London: BEC p.v)

15 BEC(1976) p.v

16 Morris, P (1977) 'The proposals of the Business Education Council: a critical appraisal of BEC as an exercise in curriculum development'. Journal of Further and Higher Education 1(3) (Winter p. 7)

17 Cantor & Roberts (1979) p. 79

18 Interview with J M Bruce Lockhart. In Trade and Industry 24 March 1976 p. 849 cited in Morris (1977) pp.7-8

19 Morris (1977) p.8

20 BEC(1976) p.20
BEC(1979) Annual Report 1978-1979 (London: BEC p.3)

21 Livesey, F (1979) 'The relevance of GCE economics to industry and the professions'. Economics vol.xv part 4 no.68 (Winter pp.110-117)

22 Moor, C, Adams, S & Dean, A (1981) Evaluation of TEC programmes; progress of students and acceptability to employers. (Slough: National Foundation for Educational Research)

23 BEC(1982 a) BEC General Awards Review. (London: BEC)
BEC(1982 b) The education needs in the Distributive Industry. (London: BEC)

PERCEIVED NEEDS: AN EMPIRICAL STUDY

The Views of 'Industry'

'Industry' is here used to describe employers in a wide range of private and public sector organisations. For the purpose of this study, the organisations are divided into five broad classes: finance, distribution, manufacturing, public sector, and other. Finance is further sub-divided into banking, life assurance, and building society. The concern here is to examine the congruence between the views of industry at local level as to what it requires in the business education of its young employees and the content of the BEC National course.

The phrase 'perceived need' does serve to indicate potential difficulties: that those at different levels, in different functions in an organisation, and in different organisations, may have different perceptions of business studies, the day-release education of young employees, and of economics. And it is a reminder that a person's perception is affected by experience, attitudes, values and a number of distorting factors.

Don Ball (Principal, Hastings College of Further Education) has stated:

> the demand side is not always able to articulate its requirements as comprehensively or descriptionly (sic) as the college ... would prefer (1)

prefacing his review of the potential diversity of perceived needs and his suggestions of ways by which employers' needs could be better stated and through which some 'perceptual common dominators' could be found (2) He urges that they refrain from 'generalisations over lunch' about the curriculum and from overemphasis on interview performance, but they should think of the curriculum needs of the young person and take an interest in the qualification and course programme being followed. (3) He then sets out five clear suggestions:

1 be specific and honest about educatonal qualifications required
2 achieve uniformity of requirements within the company
3 participate in local educational matters - committees and governing bodies
4 respond to college requests for help and advice
5 specify criteria of content/standard required in a course

The reference to being 'specific and honest' allows Ball to devote the last third of his paper to extensive citation of the Central Policy Review Staff report Education, Training and Industrial Performance. (5) In short, the CPRS reported contradictions between the explicit statements of employers about qualifications and curricula and the implicit signals in their ways of recruitment and selection.

A recent study of industry's recruitment of school leavers by the School of Education, University of Reading, reported that employers often had mistaken ideas about the content of examination syllabuses. (6)

Clearly any survey of employers' views of education must be mindful of the problems raised above. The survey reported here has made a number of presumptions:

1 that 'industry' holds a view of the concent of the BEC National Awards curriculum

2 that 'industry' is capable of expressing its view, and, more particularly, it can do so through the medium adopted for this survey

3 that an aggregation of the views of individual employers can be validly held as the view of a particular class of employers

4 that an aggregation of the views of employers in the five broad classes can be validly held as the view of 'industry'

which will be dealt with in the analysis of the quantitative and qualitative data collected by the survey.

Four evaluation exercises

As noted above four evaluation exercises have a bearing on the survey reported here.

1. The relevance of GCE Economics to Industry and the Professions

Professor Frank Livesey published the findings of his work in Economics, the journal of the Economics Association, in Winter 1979. To consider whether A level economics was likely to help in preparing students for entry into industry and the professions, what changes in the syllabus might be required to improve that preparation, and the possible implications of such changes, he sought the opinions of 'The Head of Economics' of 500 schools in England and Wales. The sample was chosen:

> to give a wide coverage in terms of both location and type of school - comprenensive, grammar and independent (7)

the 175 usable replies represented a 35 per cent response rate, and no further approach to non-respondents was made. Livesey believed the sample to be 'fairly representative of all economics teachers' yet he did not refer to the size of the population of all teachers of A level economics in schools and other places, nor to the manner of choice of the sample: the problem of bias was not raised. The questionnaire comprised two sections: the first 16 statements to which responses were recorded on a five point Likert scale (strongly agree, agree, neither agree nor disagree, disagree, disagree strongly) the second having 96 concepts/topics which respondants rated on a nine point scale (extremely useful ... of no use whatsoever) of usefulness for a student entering industry or the professions from school. Its publication generated no further comment in Economics. No one sought to raise with Livesey his grounds for believing that school teachers could be held to represent the views of industry and the professions, nor why the exercise had not been directed at industry and the professions in the first place - a further possibility would have been a parallel and complementary exercise involving industry and the professions. The findings of the first part may be summarised from Table 1 of Livesey's article (8): according to the teachers

1 GCE economics does not take into account the students' needs in terms of their future jobs; but it should.

2 The syllabus is designed to prepare students for higher education rather than industry; but it should not be.

3 GCE economics is a better preparation for work than is mathematics, English language, or a foreign language; but business studies is betterthan economics.

4 GCE economics is of indirect assistance to students entering industry as it will have developed their analytical ability and increased their awareness of the factors which influence business decisions.

5 Students are better, rather than less well, equipped for entry to industry after Theory of the Firm; there would be no gain from increased time on applications of demand/supply analysis and less time on consumer behaviour; but there would be a gain if more attention was paid to the nature of uncertainty and the ways firms attempt to reduce it.

6 The assumption of perfect knowledge in Theory of the Firm helps students develop an analytical approach to business problems.

7 The introduction of data response questions into examinations has encouraged teaching which helps to equip students for enter into industry.

8 They are evenly divided on whether there is conflict in the teaching of economics between the preparation of students for entry into higher education and into industry.

Thus set out, the responses generate major questions and betray the inadequacies of the exercise: what are the students' needs in terms of future jobs, and who specifies them?, what criteria have been used in judging the contributions of subjects as preparation for work?, what evidence exists for the valuations of analytical ability and awareness of factors in decision making?, and what does it mean to be 'better ... [or] ... less well equipped' for entry into industry?, is less time spent on consumer behaviour a concomitant of more time spent on applications of demand/supply?, what changes in teaching have been brought about by the introduction of data response questions, and how do these changes help to equip students for entry into industry?

The findings of the second part were brought together in five categories - very useful, useful, of limited use, least useful, neutral - with the ranking of the 96 items produced by a three stage process. Table 2 in Livesey's article lists the items and the percentage of the respondents in each of the original nine point scale categories. (9)

2. Evaluation of TEC programmes

Sponsored by the Department of Education and Science, an evaluation of Technician Education Council (TEC) programmes was undertaken by the National Foundation for Educational Research over the period 1979 to March 1983: the information discussed here is contained in a report of some initial findings from the first stage of the research published in March 1981. (10) The study had three objectives:

1 to describe the characteristics, progress and attitudes of students enrolled on selected TEC programmes as a basis for evaluating the effectiveness of these programmes

2 to investigate the acceptability to employers of TEC programmes and newly qualified technicians

3 to examine the role of employers in the design and development of TEC programmes

and adopted a two-level methodology of questionnaires, tests and interviews with large numbers of TEC students, employers and college staff, complemented by detailed longitudinal case-study work with a smaller sample of the students and their employers.

One thousand and sixty four students in 23 colleges completed a questionnaire covering their entry qualifications, perceptions of TEC and its relevance to their employment, and plans for further study: in addition, 1,326 students took a seven part aptitude test developed by Garnett College to give a broad indication of attainment. (11) Seven hundred and forty one companies, identified from college records of the 1,326 students, were sent a questionnaire which sought their policy on technician training, their perceptions of training needs and the extent to which they were being met by TEC courses, and their perceptions of colleges' provision of information and opportunities for discussion of TEC courses: the first 252 completed and returned questionnaires had been analysed by March 1981. (12)

In a paper to a joint CBI/Colleges Panel conference in 1981, Christine Moor reviewed the initial findings of the NFER study. (13) Thirty four per cent of employers had received detailed information about the course attended by their trainee(s) and a further 25 per cent had received some information, but 31 per cent had received none at all; as to their perceived training needs, half of the responses were evenly divided between generalised training within the industry and training specific to a job and type of company, no pattern was discernible among the remainder; 4 per cent felt the TEC programme was unsatisfactory in meeting current needs, 45 per cent were satisfied, the diversity of responses reflects the difficulties which some employers had in identifying and expressing their needs of education and training, which consequently made the interpretation of the perceptions of satisfaction more difficult. (14)

3 BEC General Awards Review

Between September 1981 and March 1982 BEC was engaged in a programme of consultation and research as the first stage of the General Awards review. (15) The data were collected in five ways: analysis of centralised registration and performance records, questionnares to students and Centres, face-to-face interviews of students, telephone interviews of employers, and a circular letter. A questionnaire was sent to 308 students, a 2 per cent sample of those registered in 1980-1981, and 'every endeavour was made to ensure that the sample ... was representative' although the report does not specify the nature of those 'endeavours' nor the criteria for being 'representative': 124 were returned, a 40 per cent response. Three hundred and twenty-six of 397, a response rate of 82 per cent, was achieved for the questionnaires to the Centres (i.e. the colleges and schools offering BEC General Awards courses). Fifty-eight 'usable' telephone interviews were completed, and 59 usable replies (out of over 2,000 sent) were received to the Consultative Letter. (16) The employees were selected through their association with the same Centres from which the student sample had been drawn, and the report points out that they were biased toward a favourable attitude to the course since they had all had contact with it - arguing that those employers who were knowledgeable about the course and were thoroughly dissatisfied would be less likely to use it.

4 The education needs in the Distributive Industry

The BEC General Award, which was introduced in 1978, replaced the Certificate in Office Studies and the General Certificate in Distribution. The distributive industry in the UK employs roughly 2.5 million people (10 per cent of the national work force) and, at the time of the survey, recruited 100,000 persons annually, in which figure were 20 per cent of statutory school leavers, many with relatively few academic qualifications.

BEC, the School of Education (University of Newcastle upon Tyne), the Distributive Industry Training Board, and the Distributive Industry Training Board (Northern Ireland) were involved in the project which began in October 1979. The aims were:

> to determine the education, skills and areas of knowledge and understanding which, in the view of employers, are required by young recruits to the industry, bearing in mind the wide variety of firms and the different types of jobs in the industry
>
> to determine the views of young employees on what skills, knowledge and education would help them to perform their jobs better and enable them to progress further
>
> to determine how well BEC General courses meet these requirements and to make recommendations on the future development of courses for the industry (17)

Between September, 1980 and June, 1981, sixteen interviewers undertook a total of 700 face-to-face interviews using three different structured questionnaires with:

senior managers, training officers and supervisors	256
young entrants to the industry	389
lecturers on BEC General courses	55

In addition, data were obtained by postal questionnare from an unstated number of careers officers and careers teachers.

The Report concluded:

> The principal failure of the BEC General course in meeting the education needs of the industry lies in its lack of market penetration (18)

Interpreted, this arcane statement seems to mean that the course does meet the needs of the firms who send their new entrants to take it, but that many new recruits in other firms are not sent. Management staff in those latter firms perceived that it did not satisfy the needs either of the recruit or the firm, for reasons which were 'many and varied'. The Report recommended:

> Further education and training courses for young people who leave school at 16 should be made as relevant as possible to employment, both in regard to the course content and the teaching methods employed (19)

The Report does not identify the education needs of industry or the young employees; and in stating that 'courses ... should be made as relevant as possible' it merely increases the demands for research to identify the needs and demonstrate the relevant materials.

The Empirical Study

To endeavour to answer the first two questions set for this study, a two part questionnaire was prepared.

The second part used 95 of the items of the list of concepts/topics which Livesey used in his survey, and the respondents' rating of each was recorded using that same nine point Likert scale. (20) A further column was added for respondents to indicate if the item was used in, or was otherwise especially relevant to, the organisation. The reasons for using Livesey's list were twofold. First, it existed and had been used in a manner similar to the proposed exercise, and secondly, it offered the opportunity to set Livesey's school teachers' perceptions of industry's views against the views of industry.

Questions one, two and three of the first part identify, and collect factual data about, the organisation; question ten offers an open-ended opportunity to comment on the BEC National Certificate. Questions four to nine are an attempt to discover whether the organisation has identified the knowledge, understanding and skills required, and to assess the degree to which the organisation has had contact with the BEC National Certificate course. Questions four and five are not exclusive, in that while a negative answer to question four (meaning that the organisation itself has not specified its own needs) may be followed by a positive response to question five (meaning that the organisation accepts some specification) an organisation may both specify its needs in terms of employee skills and look to a national professional body's specifications. Question six is designed to probe further the use of national specifications. Questions seven and eight raise data on the extent of the organisation's knowledge of the structure and content of the BEC National Certificate course. Question nine seeks the organisaton's perception of the congruence of its education and training needs and the BEC National Certificate course.

The covering letter and the questionnaire are reproduced below.

1. The Sample

The sample of employers comprised all those whose students were attending Buckinghamshire College of Higher Education for the first or second year of the BEC National Certificate course. The students in their second and final year were the fourth intake which the School of Business Studies had admitted since the inception of BEC courses in 1978; the first year students were the fifth intake. Copies of the questionnaire were despatched via these students to fifty different employers situated, with four exceptions, in the tri-county catchment area of the college - in each of the four exceptions the student was resident in the High Wycombe area and commuted to employment in London.

No attempt was made to obtain any form of random sample of employers. First, the nature of the survey - of the need of economics in BEC courses - required that the respondents had knowledge of, or at least contact with, BEC courses; secondly, exigencies of teaching and curriculum development precluded any wider survey.

ECONOMICS IN THE BEC NATIONAL CERTIFICATE IN BUSINESS STUDIES

RESEARCH PROJECT

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The research project being undertaken by Alan Pittwood, Lecturer in the School of Business Studies, is concerned with four questions:

1 What economics does industry/commerce say it wants included in the BEC National Certificate in Business Studies syllabus?

2 What economics topics/concepts are used in, or especially relevant to, industrial /commercial organisations?

3 What economics is included in the BEC National Certificate in Business Studies syllabus?

4 With reference to questions 1 and 2, what economics should be included in the BEC National Certificate in Business Studies syllabus?

The project has been designed to contribute to the national debate on the syllabus of The Organisation in its Environment which, as the 'Double Common core Module', is a compulsory part of both of the two years of the BEC National Certificate in Business Studies course. The economics in the BEC National Certificate in Business Studies is found in that module.

I would be grateful if you would participate in the project by completing the questionnaire which is being used to collect data to attempt to answer the first two of the above questions. The completed questionnaires will be confidential and it will not be possible to identify individual respondents in the final report. However, if an individual or organisation wishes to make an attributable comment then it might be included in the final report and the source acknowledged in the notes and bibliography.

If you would like further details or wish to discuss the project and its aims, please contact Alan Pittwood at the above address and telephone number.

I thank you for your participation

Alan Pittwood

This survey seeks to identify the economics knowledge and skills which employers want their employees to acquire through the BEC National Certificate in Business Studies. I would be most grateful if you would give this project your support and complete this questionnaire.

1 Name of respondent, and post

2 Organisation/Firm/Company

3 Nature of the organisation's business

4 Has the organisation identified and defined the knowledge, understanding and skills required by its Business Studies students? If it has, please give details.

5 Does the organisation rely on some national specification of knowledge, understanding and skills? For example, the examination syllabus of a professional body (Institute of Bankers, Association of Accounting Technicians)

6 Are the organisation's Business Studies students expected to pursue a further vocational/professional course? If so, please state which.

7 BEC (the Business Education Council) changed the structure and content of Business Studies at National (formerly ONC) level. Has the organisation received information about the structure and content of the BEC course? If so, please state the source of the information.

8 Has the organisation examined the content of the modules (i.e. subjects) studied during the course? Has it examined the tasks (i.e. the assessed pieces of work) set? Has it formed a view of the appropriateness and standard of the content and/or tasks?

9 In the opinion of the organisation, does the BEC National Certificate in Business Studies meet the education and training needs identified in the responses to questions 4 and 5?

10 Are there any additional comments which the organisation would like to make about any aspect of the BEC National Certificate in Business Studies?

The second part of this questionnaire is concerned with details of the study of Economics in the BEC National Certificate in Business Studies course. Topics/Concepts in Economics are listed, and you are asked to indicate by a tick (✓) in one of the nine columns whether the organisation considers the topic/concept to be:

Extremely useful								Of no use whatsoever
9	8	7	6	5	4	3	2	1

to one of its employees following the National Certificate course - i.e. an assessment of each topic's contribution to the student's business education. Finally, in the tenth column, please indicate by a tick (✓) if the topic is used in, or otherwise especially relevant to, the organisation.

Economics topics/concepts	Rating									Used by the organisation
	9	8	7	6	5	4	3	2	1	
Scarcity										
Function of the price mechanism										
Comparative economic systems										
Price elasticity of demand										
Income elasticity of demand										
Substitution										
Complementarity										
Marginal utility										
Indifference analysis										
Revealed preference										

NOTE: The questionnaire continued in the same style over four pages; for brevity, the concepts/topics are listed here.

Perfect competition
Monopoly
Oligopoly
Price discrimination
Marginal cost
Marginal revenue
Equilibrium
Structure of population
Optimum population
Occupational structure
Division of labour
Specialisation
Economic rent
Marginal productivity theory
Collective bargaining
Labour market institutions
Location of industry
Regional unemployment
Industrial concentration
Economies of scale
Multi national companies
Barriers to entry
Vertical/horizontal growth
Mergers/take-overs
Cooperatives
Public ownership
Externalities
Cost benefit analysis
Profit: a business objective
Growth: a business objective
Satisficing
Economic efficiency
Productivity
Stocks (inventories)
Nature and functions of money
Credit creation
Stock exchange
Sources of business finance
Internal rate of return (DCF)
Investment determinants
Interest rate determinants

Role of the central bank
Principle of comparative cost
Balance of payments
Exchange rates
Terms of trade
International liquidity
International economic organisations
Barriers to international trade
Customs unions
Free trade areas
The standard of living
Determinants of growth
The costs of growth
Opportunity cost
Measurement of national income
The circular flow of income
Prices indices
The consumption function
The multiplier
The accelerator
Causes of inflation
Velocity of circulation
Full employment
Normal rate of unemployment
Quantity theory of money
The money supply
Distribution of income/wealth
Central government services
Local government services
Price controls
Rationing
Output quotas
Buffer stocks
Subsidies
Indirect taxes
Direct taxes
Prices & incomes policies
Fiscal policy
Monetary policy
Regional policy
The trade cycle

Manpower policy											
Industrial policy											
Competition policy											

Please return the questionnaire to:

Alan Pittwood
School of Business Studies
Buckinghamshire College of Higher Education
Easton Street
HIGH WYCOMBE

The respondent organisations were divided into the five broad classes: finance, distribution, public sector, manufacturing, other - which BEC has used in its annual report. Table 1 compares the proportions of each class in the survey sample with the proportions in national data analysed by BEC. The high proportion of employers in finance in the survey data accords with the national statistics, the proportions in public sector and manufacturing area are reversed in the survey data, and there is a higher proportion of 'other' organisations in the survey data than in the national data. These differences suggest that caution would be required if extrapolations were to be made from the quantitative data.

Thirty six questionnaires were returned, a response rate of 72 per cent, but three did not complete the ranking of the concepts/topics in part two so only 66 per cent can be claimed for the survey method. Table 2 classifies the respondents and non-respondents.

2. Analysis and Findings

As in Livesey's study, an objective is to reduce the data to a ranked list of the concepts/topics. For each of the 95 questionnaire items, there are four elements of data: the rating of the usefulness on the 9 to 1 scale, whether the rating was 'high' i.e. 9, 8 or 7, whether the rating was 'low' i.e. 1, 2 or 3, whether it was used in, or was otherwise especially relevant to, the organisation. The items may be ranked using each of the four data elements individually, and a final rank achieved by sorting according to their appearance in the quintiles of the separate rankings. The item 'scores' produce a ranking by arithmetic mean (the higher the mean the higher the ranking). The 'high rating' rank is produced by computing the number of respondents who rated the item 9, 8 or 7 (the higher the number of respondents the higher the ranking): the 'low rating' rank by the number rating the item 1, 2 or 3 (the lower the number of respondents the higher the ranking). The 'specially relevant' rank is produced by computing the number of respondents so rating the item (the higher the number of respondents the higher the ranking). Livesey's final ranking was based on the combination of the first three of these rankings only. This survey has produced final rankings based on three and four inputs.

The questionnaire is considered in reverse order, part two being dealt with first. In dealing with the questionnaire, particularly in connexion with the quantitative material of part two, it must be remembered that the sample of respondents was small and, therefore, the results of the processing must be treated with some caution.

Table 3 follows the pattern of Table 2 in Livesey's study in presenting the results of the first stage of collation and processing in the questionnaire order of the concepts/topics; but has departed from the original in giving the number of respondents rating the item instead of the percentage, and in showing the number of respondents giving 'high' and 'low' ratings.

A ranking based on the mean, high and low ratings has produced 14 items in the top quintile on all three measures, 16 in the top or second quintiles on all three measures, 11 in the lowest quintile on all three measures, 12 in the lowest or next to lowest quintiles, 42 remain for the middle classification. The items are listed in the five categories: very useful, useful, neutral, of limited use, least useful - in Table 4. If the procedure is repeated with the addition of the ranking by 'especial relevance' then only 11 remain in the first category - having been in the first quintile on all four measures - likewise the second category reduces to 14 in number, while the third category increases to 47. The changes in category are listed in the notes at the foot of Table 4.

Table 1

Employers of BEC National Certificate students, as percentages by class

Class	Employers in survey %	National data %
Finance	47	44
Distribution	3	7
Public sector	11	27
Manufacturing	22	12
Other	17	10
number n	36	17990
percentage %	100	100

Source: Survey data
BEC (1981) Annual Report 1980-1981. (London: BEC)

Table 2

Organisations involved in the survey, by class

	Questionnaires despatched		Questionnaires completed		Part one only		Not returned	
Public sector	7		4		0		3	
Manufacturing	11		8		0		3	
Finance								
Banking	18		16		0		2	
Life assurance	2		0		1		1	
Building society	2	22	0	16	0	1	2	5
Distribution	1		1		0		0	
Other	9		4		2		3	
number n	50		33		3		14	
percentage %	100		66		6		28	

Source: Survey data

Table 3 Assessment of usefulness of concepts/topics in Economics to an employee following a BEC National Certificate course

Concept/Topic	Number of respondents rating the item Extremely useful 9	8	7	6	5	4	3	2	Of no use whatsoever 1	Mean	High rating	Low rating	Specially relevant
Scarcity	0	0	0	5	4	5	16	2	1	3.73	0	19	1
Function of the price mechanism	0	0	0	4	14	6	8	1	0	4.36	0	9	1
Comparative economic systems	0	0	3	5	0	0	8	16	1	3.27	3	25	0
Price elasticity of demand	0	0	0	2	8	2	18	3	0	3.64	0	21	0
Income elasticity of demand	0	0	0	2	8	2	18	3	0	3.64	0	21	0
Substitution	0	0	0	2	8	5	14	4	0	3.70	0	18	0
Complementarity	0	0	0	0	8	3	14	5	3	3.25	0	22	0
Marginal utility	0	0	0	2	0	6	5	16	4	2.64	0	25	0
Indifference analysis	0	0	0	0	4	5	2	4	18	2.18	0	24	0
Revealed preference	0	0	0	0	8	0	3	3	19	2.24	0	25	0
Perfect competition	0	0	0	2	4	4	17	4	2	3.30	0	23	0
Monopoly	0	0	0	2	6	0	17	4	4	3.18	0	25	0
Oligopoly	0	0	0	0	8	0	16	6	3	3.12	0	25	0

Concept/Topic	9	8	7	6	5	4	3	2	1	Mean	High rating	Low rating	Specially relevant
Price discrimination	0	0	0	0	9	1	16	5	2	3.30	0	23	0
Marginal cost	0	1	0	0	4	4	17	6	1	3.27	1	24	0
Marginal revenue	0	1	0	0	4	6	14	6	2	3.27	1	22	0
Equilibrium	0	0	0	0	5	3	3	17	5	2.57	0	25	0
Structure of population	0	0	0	0	5	5	3	16	4	2.72	0	23	0
Optimum population	0	0	0	0	0	7	4	17	5	2.39	0	26	0
Occupational structure	0	0	0	0	3	7	14	3	6	2.94	0	23	0
Division of labour	0	0	0	8	0	2	17	4	2	3.54	0	23	0
Specialisation	0	0	0	0	8	3	17	2	3	3.33	0	22	0
Economic rent	0	0	0	0	8	1	19	3	2	3.30	0	24	0
Marginal productivity theory	0	0	0	0	8	1	20	1	3	3.30	0	24	0
Collective bargaining	0	0	3	0	7	2	14	4	3	3.54	3	21	0
Labour market institutions	0	0	0	0	9	3	14	4	3	3.33	0	21	0
Location of industry	0	0	2	2	8	2	11	2	6	3.54	2	19	0
Regional unemployment	0	0	2	2	7	2	9	3	8	3.33	2	20	0
Industrial concentration	0	0	0	2	9	1	11	2	8	3.21	0	21	0

Concept/Topic	9	8	7	6	5	4	3	2	1	Mean	High rating	Low rating	Specially relevant
Economies of scale	0	0	0	1	2	7	15	2	6	3.00	0	23	0
Multi-national companies	0	0	0	1	0	8	12	5	7	2.76	0	24	1
Barriers to entry	0	0	0	1	4	7	10	3	8	2.97	0	21	0
Vertical/horizontal growth	0	0	6	0	1	2	12	4	8	3.24	6	24	0
Mergers/take-overs	0	0	5	1	1	2	12	4	7	3.18	5	23	0
Cooperatives	0	0	0	0	0	7	15	3	8	2.64	0	26	1
Public ownership	0	0	1	2	1	6	12	3	8	2.97	1	23	0
Externalities	0	0	0	0	0	6	12	5	10	2.42	0	27	0
Cost-benefit analysis	0	1	1	0	4	5	14	2	6	3.24	2	22	1
Profit: a business objective	6	0	0	1	5	4	17	0	0	4.61	6	17	8
Growth: a business objective	8	0	0	1	2	5	11	6	0	4.64	8	17	8
Satisficing	0	2	0	0	6	0	10	3	12	2.85	2	25	0
Economic efficiency	2	0	0	0	7	3	13	2	6	3.45	2	21	2
Productivity	3	0	0	6	3	4	10	1	6	4.00	3	17	8
Stocks (inventories)	0	8	0	2	1	1	14	1	6	4.09	8	21	8
Nature and functions of money	16	1	0	0	8	3	4	1	0	6.60	17	5	16
Credit creation	17	6	1	0	3	3	2	1	0	7.36	24	3	18

Concept/Topic	9	8	7	6	5	4	3	2	1	Mean	High rating	Low rating	Specially relevant
Stock exchange	0	2	5	2	3	8	13	0	0	4.51	7	13	16
Sources of business finance	2	0	5	5	5	13	1	2	0	5.06	7	3	16
Internal rate of return (DCF)	0	0	6	2	6	16	3	0	0	4.76	6	3	0
Investment determinants	12	0	0	10	7	3	1	0	0	6.61	12	1	10
Interest rate determinants	18	0	0	0	8	6	1	0	0	6.94	18	1	17
Role of the central bank	16	2	0	2	5	5	1	0	2	6.72	18	3	17
Principle of comparative cost	2	0	2	1	7	0	5	13	3	3.54	4	21	0
Balance of payments	12	0	1	0	10	5	2	2	1	5.94	13	5	0
Exchange rates	16	3	0	0	3	5	4	2	0	6.64	19	6	19
Terms of trade	11	3	0	1	8	4	3	3	0	6.06	14	6	18
International liquidity	16	3	0	2	4	2	3	1	2	6.69	19	6	17
International economic organisations	10	3	2	3	0	0	4	9	1	5.36	15	14	3
Barriers to international trade	0	3	1	4	6	3	4	12	0	4.03	4	16	2
Customs unions	0	3	1	3	1	0	14	3	8	3.33	4	25	2
Free trade areas	0	0	0	6	2	1	14	8	2	4.42	0	24	1
The standard of living	0	0	0	2	8	4	17	1	1	3.70	0	19	3
Determinants of growth	0	0	0	1	7	1	19	4	1	3.36	0	24	3

22

Concept/Topic	9	8	7	6	5	4	3	2	1	Mean	High rating	Low rating	Specially relevant
The costs of growth	0	0	2	0	3	3	19	3	3	4.70	2	25	1
Opportunity cost	0	0	3	2	1	11	13	3	0	3.84	3	16	1
Measurement of national income	0	0	2	1	3	12	13	1	1	3.79	2	15	0
The circular flow of income	0	1	0	2	3	10	12	4	1	3.64	1	17	0
Prices indices	2	1	9	3	0	3	13	2	0	4.90	12	15	9
The consumption function	0	0	0	4	2	3	13	4	7	3.03	0	24	0
The multiplier	0	0	0	5	2	2	19	4	1	3.45	0	24	0
The accelerator	0	0	0	5	3	1	19	4	1	3.48	0	24	0
The trade cycle	0	0	0	3	4	1	20	4	1	3.36	0	25	0
Causes of inflation	0	7	0	1	5	7	12	0	1	4.61	7	13	0
Velocity of circulation	9	0	0	0	4	7	4	5	4	4.70	9	13	16
Full employment	0	0	0	0	6	5	18	3	1	3.36	0	22	0
Normal rate of unemployment	0	0	0	0	1	9	19	3	1	3.18	0	23	0
Quantity theory of money	16	0	3	2	3	0	2	6	1	6.39	19	9	16
The money supply	16	0	3	2	4	3	1	3	1	6.63	19	5	16
Distribution of income/wealth	0	0	0	0	2	5	24	1	1	3.18	0	26	0
Central government services	1	0	1	3	2	3	13	9	1	3.45	2	23	4

Concept/Topic	9	8	7	6	5	4	3	2	1	Mean	High rating	Low rating	Specially relevant
Local government services	1	0	1	4	1	3	13	9	1	3.48	2	23	4
Price controls	1	2	0	2	7	6	13	2	0	4.21	3	15	2
Rationing	0	0	2	0	3	10	12	5	1	3.51	2	18	0
Output quotas	0	1	2	3	0	4	12	5	6	3.27	3	23	1
Buffer stocks	0	1	2	3	0	2	12	6	7	3.12	3	25	1
Subsidies	0	0	2	3	11	2	12	2	1	4.12	2	15	0
Indirect taxes	0	5	8	2	3	0	12	3	0	5.00	13	15	3
Direct taxes	0	4	10	2	3	0	11	3	1	5.12	14	15	2
Prices & incomes policies	1	2	6	8	2	1	12	1	0	5.06	9	13	3
Fiscal policy	0	9	12	6	4	1	1	0	0	6.64	21	1	6
Monetary policy	7	12	6	3	2	2	1	0	0	7.27	25	1	4
Regional policy	0	0	3	11	5	2	12	0	0	4.72	3	12	4
Manpower policy	0	3	2	2	5	10	10	1	0	4.45	5	11	0
Industrial policy	0	5	2	2	9	1	12	2	0	4.70	7	14	0
Competition policy	0	0	0	7	5	7	12	2	0	4.09	0	14	0

Table 4

Ranking by employers of the usefulness of concepts/topics in economics to an employee following a BEC National Certificate course

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Category 1 (Very useful) 14 items

Nature and functions of money	Terms of trade
Credit creation	International liquidity
Investment determinants	Quantity theory of money
Role of the central bank	The money supply
Balance of payments	Prices & incomes policies
Interest rate determinants	Fiscal policy
Exchange rates	Monetary policy

Category 2 (Useful) 16 items

Profit: a business objective	Prices indices
Growth: a business objective	Causes of inflation
Productivity	Velocity of circulation
Stock exchange	Indirect taxes
Sources of business finance	Direct taxes
Internal rate of return (DCF)	Regional policy
International economic organisations	Manpower policy
Barriers to international trade	Industrial policy

Category 3 (Neutral) 42 items

Scarcity	Stocks (inventories)
Function of the price mechanism	Principle of comparative cost
Comparative economic systems	Customs unions
Price elasticity of demand	Free trade areas
Income elasticity of demand	The standard of living
Substitution	The costs of growth
Marginal cost	Opportunity cost
Marginal revenue	Measurement of national income
Division of labour	The circular flow of income
Marginal productivity theory	The multiplier
Collective bargaining	The accelerator
Labour market institutions	The trade cycle
Location of industry	Full employment
Regional unemployment	Central government services
Industrial concentration	Local government services
Barriers to entry	Price controls
Vertical/horizontal growth	Rationing
Mergers/take-overs	Output quotas
Cost benefit analysis	Buffer stocks
Satisficing	Subsidies
Economic efficiency	Competition policy

Category 4 (Of limited use) 12 items

Complementarity	Economic rent
Perfect competition	Economies of scale
Price discrimination	Public ownership
Structure of population	Determinants of growth
Occupational structure	The consumption function

Table 4 continued

Specialisation

Normal rate of unemployment

Category 5 (Least useful) 11 items

Marginal utility
Indifference analysis
Revealed preference
Monopoly
Oligopoly
Equilibrium
Optimum population
Multi-national companies
Cooperatives
Externalities
Distribution of income/wealth

Notes:

1 The classifications are derived from the rankings by the three measures - mean, high and low rating

2 If all four rankings - mean, high and low rating, especial relevance - are used then the following changes in category result:

Category 1 to Category 2	Prices and incomes policies
	Monetary policy
Category 1 to Category 3	Balance of payments
Category 2 to Category 3	Internal rate of return (DCF)
	Causes of inflation
	Regional policy
	Manpower policy

Categories 4 and 5 remain unchanged

At this point, having used the same data processing methods, it is interesting to compare industry's perceptions of the usefulness of economics concepts/topics with Livesey's teachers' perceptions of the relevance of economics to industry and the professions.

		Number of items in category		Number of items
		Teachers' ranking	Industry ranking	in common
Category				
1	'very useful'	15	14	1
2	'useful'	16	16	4
3	'neutral'	31	42	17
4	'of limited use'	21	12	4
5	'least useful'	13	11	5

While this seems to confirm the doubt raised as to the validity of teachers standing proxy for industry, it cannot be taken as definitive evidence owing to the composition of the sample of industry used in this survey.

Comparison of the results of the two surveys discloses further differences. The range of the mean rating of the items by Livesey's respondents was 4.15 - 8.90, the range in the survey here was 2.18 - 7.36. But the mean - here, strictly, the weighted arithmetic mean - is susceptible to the inclusion of extreme, untypical values. (21) The mode - the value which occurs most frequently - offers a quick estimate of central tendency and the most typical value. In the survey of teachers the mode is 7, or greater, for seventy nine of the items; in the industry survey the mode is 3, or less, for seventy seven of the items. In the industry survey, 39 items received no high rating at all - no 'score' of 9, 8 or 7 - additionally, 16 of this 39 received no 'score' of 6 either.

On the evidence of the data in the two surveys, it seems that the teachers perceive the concepts/topics of economics to be of much greater usefulness to a student entering industry or the professions than does industry in the post-entry training of its young employees. This perception of the teachers is hardly surprisng. Each group of respondents has ranked two thirds of the items into the lowest three categories, but, as noted above, there is little degree of agreement concerning the category into which the items should go: ten items ranked by the teachers into categories 3 to 5 appear in industry's category 1. Thus far, doubt is cast on the ability of the teachers to divine industry's needs. However, the responses to the questions in part one of the questionnaire suggest the rankings by industry may also be questionable.

The questions in the first part of the questionnaire examine the organisations' perceptions of required knowledge, understanding and skills, and their knowledge of the BEC Natonal Certificate course.

The banks are quite clear: the knowledge, understanding and skills being acquired by their students are in preparation for the Institute of Bankers Stage 2 examinations leading to Associateship (AIB). The objective of the Stage 1 courses is:

> to provide sufficient grounding in the basic commercial subjects to enable candidates to undertake courses leading to the professional (Stage 2) examinations (22)

and the BEC National Award represents the Stage 1 for those with four GCE O level passes. For those with one GCE A level pass, Stage 1 comprises the Bankers' Conversion Course based on the Institute's guide syllabuses in English, Economics, Structure of Accounts, General Principles of Law, and Elements of Banking. The stated aim of Economics is:

> to give a background knowledge of economic theory and monetary institutions and prepare candidates for Applied Economics in Stage 2 (23)

The guide syllabus for Economics is divided into seven sections:

1 The meaning and scope of economics
2 The organisation of production
3 The theory of value
4 The problems of distribution
5 The nature and functions of money
6 The theory of comparative costs
7 National income

It is the bankers' view of their students' needs for the Stage 2 studies which has produced the monetary domination of category 1 - see Table 4 and also, for example, the ranking of nature and functions of money which the 16 banks 'scored' 9 while sixteen other organisatons 'scored' 5 or less. Further evidence is provided below of the clear intentions of the banks to have their students well prepared for the Stage 2 - indeed, their concern is well founded for the Applied Economics paper has had a pass rate of below twenty per cent. The banks are well informed about the structure and content of the BEC course, stating as their sources both the IOB and BEC.

A Life Assurance Society reported that its employees were allowed to study for the BEC National Certificate as 'one option to qualify to study for CII examinations'. The organisation relied on the CII (Chartered Insurance Institute) specification and did not have its own, it had not examined the content of the BEC course, and considered the concepts/topics in the questionnaire 'of little direct application to much of the students' work situation' so did not complete the second part.

The organisations in the manufacturing and 'other' classes varied considerably in size (number of employees) and legal structure (24) and this was reflected in their identification and definition of their education and training needs. In the largest organisation, there was a Training Officer and a training programme, and opportunities were provided for post-BEC National Certificate employees to move into specialised areas and take appropriate professional qualifications in, for example, accounting and marketing: in a smaller one the needs were 'basic book keeping, accounting and computer appreciation' with the future possibility that the specifications of the Institute of Accounting Staff would be used. (25) None knew about the structural and material changes to National level Business Studies, nor had they examined the content of the BEC modules.

In the public sector organisations, all Local Authorities, the students were attached to various functions, mainly finance, secretariat and technical services. When there was the prospect of a student taking the third year study of the four additional modules to qualify as an Accounting Technician, then more was known of the BEC system, though not of the modules' contents.

The analysis of part one of the questionnaire highlights features found by Moor and the NFER team working on the TEC evaluation: the lack of information about the structure and content is more marked here, with the exception of the banks, and the difficulties of organisations in identifying and specifying their education and training needs. There are grounds for doubting the ability of some respondents to understand the concepts/topics in part two of the questionnaire. One respondent was explicit:

> The only catch phrases I can remember from my economic courses are land, labour and capital. The majority of this questionnaire is so much gobbledegook to me and I think the person who fully understands and uses all these concepts should be economics adviser to the Prime Minister

and did not attempt either section of the questionnaire. Table 5 lists the concepts/topics reported as used in, or otherwise especialy relevant to, the organisations, but the questonnaire did not include any specific assessment of understanding of economics terminology. It is not possible to be precise as to how respondents dealt with terms which were unknown to them, most probably by 'scoring' the item 3, (26) nor to guess the construction placed by them on Terms of Trade and Credit Creation.

Overall, the survey discloses a major distinction between the banking sector and other categories of employer in the identification and specification of both broad business education needs and the need for economics. It has shown that aggregative methods of dealing with the data seem to show a lower rating of the usefulness of economics than was achieved in a survey of school economics teachers. It has shown that opinions about BEC courses have to be treated with circumspection as many in the sample appear not to know of the structural or material changes wrought by BEC, and it has raised circumstantial evidence of lack of understanding of economics terminology. Even so, there is some evidence to set against the content and development of BEC courses, as is suggested below.

Notes and References

1 Ball, D (1981) How employers can better identify and define their needs. BEC & CBI: the way ahead (Coombe Lodge Report vol.14 no. 10 p.542)

2 Ball (1981) p. 524

3 For anecdotal evidence of employer's lack of interest in a young person's day-release at college see, Gleeson & Mardle (1980) front end paper
Gleeson, D & Mardle, G (1980) Further education or training? (London: Routledge & Kegan Paul)

4 Ball (1981) p. 525

5 Central Policy Review Staff (1980) Education, training and industrial performance London: HMSO cited in, Ball (1981) pp. 525-526

6 Two reports, one by the School of Education (University of Reading) and the other by the Institute of Manpower Studies (University of Sussex) are discussed by Wilby (1983)
Wilby, P (1983) 'Recruiters fail to make the grade'. The Sunday Times (5 June p. 59 cols.1-2)

7 Livesey, F (1979) 'The relevance of GCE economics to industry and the professions'. Economics vol.xv part 4 no. 68 (Winter p. 110)

8 In Livesey (1979) Table 1, half the item percentages do not sum to 100, the mean score for each item appears to have been computed from the number of respondents in each of the five categories not the percentage, there is no indication that any respondent did not express a view of any item
Livesey (1979) p. 115

9 Although the totals for the 5 processed categories - 15, 16, 31, 21, 13 - sum to 96, the list for category 3 only contains 30 items. Minimum lending rate being unaccountably omitted. In Table 2 the percentages do not sum to 100, and the mean rating appears to have been computed from the numbers of respondents not the percentages.
Livesey (1979) pp. 112-113, 116-117

10 Moor, C, Andrews, S & Dean, A (1981) Evaluation of TEC programmes: progress of students and acceptability to employers. (NFER Research in progress 5 Slough: National Foundation for Educational Research).

11 The results of the survey of students are set out in Tables 3(a)-(m) in chapter 3
Moor et al (1981) pp. 14-27

12 The analysis of the first 252 employer questionnaires is set out in Tables 4(a)-(f)
Moor et al (1981) pp. 28-34

13 Moor, C (1981) Employer perceptions of TEC TEC: towards the next decade. (Coombe Lodge Report vol.14 no. 1 pp. 45-46)

14 Moor et al (1981) pp. 31-34

Moor (1981) p. 46

15 BEC (1982 a) BEC General Awards Review (London: BEC)

16 In fact, the numbers of the replies received sum to 58
BEC (1982 a) p. 90

17 BEC (1982 b) The education needs in the Distributive Industry.
(London: BEC p. 4)

18 BEC (1982 b) p. 13

19 BEC (1982 b) p. 13

20 Minimum lending rate was suspended by the Bank of England in August 1981 and has been removed from the list.
See also, note 9 above

21 The comments here are essentially a summary of those which the author usually makes to students, and they reflect a favourite textbook, Hedderwick (1975)
Hedderwick, K (1975) Statistics for bargainers. (London: Arrow Books in association with the Society of Industrial Tutors pp. 26-27)

22 Institute of Bankers (ND[1982]) Stage 1 1982: a guide to the regulations, syllabus and tuition. (London: Institute of Bankers p. 2)

23 Institute of Bankers (ND[1982]) p. 8
As from April 1983 the paper Applied Economics has been retitled Monetary Economics

24 Details of size and legal structure were not collected on the questionnaire, the remarks made here are based on the author's knowledge of the organisations, comments made on the questonnaires, and the comments of students about their employers

25 The Institute of Accounting Staff joined with the Association of Technicians in Finance and Accounting on 1 January 1981 thereby forming the Association of Accounting Technicians

26 None of the general works on social research methods offered guidance on this point, and the author has not further pursued the matter

Some Conclusions

On hearing of this study's intention to investigate employers' views of economics and the BEC National curriculum, a senior lecturer remarked:

> the employers don't mind what's in a course, just so long as it's hard and there's an exam at the end.

But recent studies have indicated that employers do have difficulty in identifying and expressing their needs for education and training for their young employees: (1) and this study concurs.

The empirical study attempted to answer the following two questions:

1 What economics does industry indicate it wants included in the business education of its 16/19 year old employees?

2 What economics is used in, or otherwise especially relevant to, industry?

The six page questionnaire required answers to ten questions and the ranking of 95 concepts/topics on a nine point Likert scale. There was some evidence that those who were uncertain about an item scored it as 3; and there were doubts over the ability of some respondents to interpret some technical terms. The sample of organisations was quite small, though in proportional terms it reflected the proportions of finance, manufacturing, distribution, public sector and other organisations as employers of National Certificate students nationally.

The analysis of the aggregate rankings gave results which were affected by the bankers' homogeneous perceptions. The computation of the mode showed that the sample of employers perceived the concepts/topics of economics as being not particularly useful to their young employees' business education: there is, however, no evidence as to whether this does accurately represent the degree of usefulness of economics or whether the results were distorted by the respondents' lack of understanding of the terminology and the consequent tendency to rank such items low.

Because the Institute of Bankers has accepted the National Certificate as a Stage 1 qualification, the bankers in the sample knew about BEC and the National Certificate curriculum. Bankers interpret the business education needs of their young employees in terms of the Associateship examinations at Stage 2, and for that reason gave high ratings to the subset of concepts/topics of monetary economics. The Institute has considered that the required subset of monetary economics has been poorly covered in the Core of the National Certificate course and has instituted two Option modules to remedy the perceived deficiencies. (2)

Where a student is ultimately to follow a professional examination course, the employer perceives the current education and training needs in terms of that course.

The smaller employees (by number of workers) were not aware of BEC nor the content of the course being followed by their young employee. There is evidence

to support the argument that any claim that the whole of BEC's endeavour is related to the articulated views of employers (3) must be qualified by an indication of what the view is and what its source is - local employers do not know what their education and training needs are nor do they know about BEC and the content of the National level course.

Forty three of the concepts/topics of economics listed in the questionnaire were reported as used in, or otherwise especially relevant to, the organisations: but only the bankers had a common viewpoint.

BEC perceives economics as having a tendency toward the 'academic', and therefore to be excised from the vocational National level course. BEC has refused to accept that the subject might form the theoretical framework of an interdisciplinary and integrated course, and it refuses to acknowledge that the Core of Basic Economics contains the concepts necessary to understand business reality. BEC does not have the need for economics which the ONC/D course had. King has shown that economics understanding is not likely to be acquired as a by-product of the BEC National course; other critics have pointed to a predominance of low-order cognitive objectives in the specification of The Organisation in its Environment. (4)

The short answer to the question:

What economics should be included in the BEC National Awards curriculum?

is - that economics which is already in it. BEC's antipathy and the employers' perceived lack of use of it notwithstanding, economics has an important and unique role to perform in business education.

Notes and References

1 Moor, C, Andrews, S & Dean, A (1981) Evaluation of TEC programmes: progress of students and acceptability to employers. (NFER Research in progress 5 Slough: National Foundation for Educational Research)
Moor, C (1981) Employer perceptions of TEC TEC: towards the next decade. (Coombe Lodge Report vol.14 no. 1 pp. 45-46)
BEC (1982 a) BEC General Awards Review. (London: BEC)
BEC (1982 b) The education needs in the Distributive Industry. (London: BEC)

2 Anonymous (1982) A new look for Stage 1. Journal of the Institute of Bankers vol.103 part 2 (April p. 63)

3 Sheffield, J (1981) Identifying employer and employee needs. BEC & CBI: the way ahead. (Coombe Lodge Report vol.14 no. 10 p. 512)

4 Mace, GR (1979) A critical appraisal of the Business Education Council National curriculum. Unpublished MA dissertation University of London Institute of Education
Mace, GR (1980) The role of economics in the BEC National curriculum. Journal of Further and Higher Education 4(3) (Autumn pp. 62-69)
King, B (1982) Cognitive gain in economics in Business Education Council National Level Courses. Unpublished MA dissertation University of London Institute of Education